

**From:** [LIVERMAN Alex](#)  
**To:** [Chip Humphrey/R10/USEPA/US@EPA](#)  
**Cc:** [Jonathan Freedman/R10/USEPA/US@EPA](#); [ANDERSON Jim M](#)  
**Subject:** RE: PO Bar dredging  
**Date:** 06/25/2010 03:13 PM

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Thanks Chip!

This gives me much more confidence that we can move this forward.. I still have to draft my Findings and the conditions, but will make them similar to what you already saw for T-5. We will have time to discuss monitoring, contingencies and risk management and put it out for public comment and when your minds are fresh (b) (6) gain  
Depending on what we hear back from the public, we may have and have a good week(s) away!  
--Alex

-----Original Message-----

From: [Humphrey.Chip@epamail.epa.gov](mailto:Humphrey.Chip@epamail.epa.gov) [mailto:[Humphrey.Chip@epamail.epa.gov](mailto:Humphrey.Chip@epamail.epa.gov)]  
Sent: Thursday, June 24, 2010 4:49 PM  
To: LIVERMAN Alex  
Subject: Fw: PO Bar dredging

trying to coordinate with Jonathan, but (b) (6)  
Here's what I sent Jonathan awhile back

Chip

----- Forwarded by Chip Humphrey/R10/USEPA/US on 06/24/2010 04:36 PM

Re: FW: PO Bar dredging (Document link: Chip Humphrey)

Chip Humphrey

to:  
Jonathan Freedman

06/02/2010  
01:44 PM

Jonathan - here is my initial reaction, although I'd like to spend some more time on this.

FW: PO Bar dredging

ANDERSON Jim M

to:  
Chip Humphrey, LIVERMAN Alex

06/02/2010  
09:23 AM

Alex,

Welcome back. I'm in a mtg rite now & haven't read all of your e-mail, but will this PM. Do you want me at this afternoon's mtg? I was thinking I didn't need to be there.

Jim

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From: LIVERMAN Alex  
Sent: Wednesday, June 02, 2010 9:14 AM  
To: ANDERSON Jim M; [freedman.jonathan@epa.gov](mailto:freedman.jonathan@epa.gov); '[humphries.chip@epa.gov](mailto:humphries.chip@epa.gov)'  
Subject: PO Bar dredging

Hiya!

Hope you all are well. Thanks again for your participation in our meeting last month with the Corps on the need for coordination among us

all on dredging projects in the Portland Harbor superfund site.

This afternoon, we will participate in our first coordination meeting on several projects being considered for Corps Regulatory permits to dredge. As T-5 is our highest priority, I intend to hash this one out today. The proposed Corps action to dredge the navigation channel at PO Bar has some similarities to T-5. As you know, though, the Corps does not regulate itself, so the PO Bar proposal will not be discussed at the coordination meeting.

As the Corps is very interested in undertaking this project during the upcoming in-water work window (July 1-Oct 31), I have been coordinating with NMFS on suitable conditions to impose through the NMFS' BO and the DEQ 401 WQC. While NMFS did incorporate many of my suggestions in their BO (issued May 13, 2010) such that most monitoring will line up, I have concerns with the allowable exposure durations of PCBs & DDT (& cadmium and zinc to a lesser extent) at higher concentrations than are present on the existing surface.

I am attaching an excerpt of the BO so you can review the conditions (condition 1. i. i., in particular) and also the PRG determination from June 2009 which includes the magnitude of increase in pollutant levels. My read is that these higher levels will be exposed for a minimum of 6 months and as much as 20 months before capping could be completed, and effectiveness of capping is suspect.

As we discussed at meetings with the Corps on the SEF issues last summer, the PRG document reflects that coordination with EPA on these issues was essential. As this has not occurred, I am trying to insure that we do so now during the development of the 401 WQC. My main dilemma is whether EPA and DEQ would agree that the NMFS monitoring, containment, and contingency measures are adequate, or whether we should impose more stringent conditions in the 401 WQC conditions. So...

1) Do you think 6-20 months of exposure at these levels is ok?

Yes - although the levels will be higher (although still not screaming numbers) than current levels at the surface at this location, risks from exposures would still be well below current exposures at the adjacent OSM area and upstream in Portland Harbor. Also, for PCBs these levels would not be expected to cause benthic toxicity - although the jury is still out on what value we will be using to predict toxicity from chemistry, our current Preliminary Remediation Goal for benthic exposure is 500 ppb. This may be adjusted after we complete our benthic reassessment review later this year. Bioaccumulation numbers are much lower, of course, but would be more of a concern over the longer timeframe. I would think if you don't see verification that the levels are going down through natural accumulation after a year (or two), then capping might be the next course of action. About that time, we should have final cleanup numbers for the harbor as well.

2) Do you think 2 inches of natural accumulation in 6 months is adequate to keep these higher levels from mobilizing?

I think the six month period may be a little short if the dredging occurs in Sept; there likely wouldn't be much accumulation starting until mid-November, and I would recommend getting through a full spring run-off cycle before determining if natural accumulation is going to play out. It would be tough to force them to cap in April in a wet year like this one, for example, without getting the benefit of the full high flow cycle. I don't think 2 inches would be adequate as a long term solution, given the dynamics of the river, but might be an indication that the trend is in the right direction.

3) If a 6 inch sand cap is placed, do you think this is adequate to keep higher levels from being mobilized, esp. in consideration of the Corps' belief that a 6 inch sand cap is not effective in the dynamic setting of the well-used navigation channel?

I think it depends on where you are in the river. It would likely be more effective in a near-shore area like T5 than out in the navigation channel, and may perform better in a depositional area like PO bar than other places in the river. The LWG's bathymetric data does indicate this area in general has accumulated several feet of material in the past seven years.

4) Are there definitive techniques for measuring 2 in to 6 in of natural accumulation in the navigation channel? I worry that bathymetry comparisons have too much error to detect so small a change and that sand traps are not representative of the whole area. Other complications could also render such monitoring ineffective and then what do we do?

The Portland Harbor multibeam bathymetric surveys reported elevation differences of 3 inches. I'm not sure if 2 inch accumulations are within the level of accuracy of the equipment. However, I don't think you should move ahead with a cap if you're less than 2 inch accumulation after six months. At least one wet weather cycle, and preferably two would be a more reasonable indicator.

5) Do you share my concern that the hottest PCB area in the harbor is located adjacent to the proposed dredging area and that dredging there may cause this to slough into the navigation channel causing significantly higher levels of PCBs and ready mobilization?

I don't think that a significant footprint of OSM contamination extends as far into the channel as the dredge prism for PO Bar, but think it is important to collect post-dredge data to look at the actual post-dredging concentrations.

Could we have some discussions on these issues and how we might agree to resolve them? I need some guidance on writing appropriate conditions for monitoring and contingencies, etc. and how to capture risk management options, etc. (For instance, the benthic sampling (condition 1.b.) and sediment deposition monitoring need more specificity).

Good idea.

The Corps is targeting Sep to do this dredging, which means I must have the draft decision out on public notice no later than July 16th. Unfortunately, I am out June 7-11 and 15-18. If we could coordinate on these issues this week and in the last weeks of June, that would be very helpful.

<<PO Bar NMFS BO Conditions.pdf>> <<PO Bar PRG determination.pdf>>

Thanks and I look forward to your comments, suggestions and discussions.

--Alex

L. Alexandra Liverman

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Got questions about the 401 WQC process? Check out DEQ's new 401 Certification website at:  
<http://www.deq.state.or.us/wq/sec401cert/sec401cert.htm>[attachment "PO Bar NMFS BO Conditions.pdf" deleted by Chip Humphrey/R10/USEPA/US]  
[attachment "PO Bar PRG determination.pdf" deleted by Chip Humphrey/R10/USEPA/US]